



# United States Department of the Interior

NATIONAL PARK SERVICE  
Congaree National Park  
100 National Park Road  
Hopkins, South Carolina 29061

IN REPLY REFER TO:

N2219

December 31, 2008

Mr. Michael Montebello  
South Carolina Department of Health and Environmental Control  
Bureau of Water  
2600 Bull Street  
Columbia, South Carolina 29201

**RECEIVED**

JAN 05 2009

WATER FACILITIES  
PERMITTING DIVISION

Dear Mr. Montebello:

Enclosed is a fully signed and executed National Park Service Research and Collection Permit for your project assessing bacteria in Cedar Creek at Congaree National Park.


If you have any questions about this permit, please contact Research Coordinator, Dr. Theresa Thom, at 803-695-0214 or by email at [theresa\\_thom@nps.gov](mailto:theresa_thom@nps.gov).

Thanks for your continued cooperation.

Sincerely,

Bill Hulslander  
Resource Program Manager

Enclosures

<p align="center"><b>SCIENTIFIC RESEARCH AND COLLECTING PERMIT</b></p> <p align="center">Grants permission in accordance with the attached general and special conditions</p> <p align="center"> <b>United States Department of the Interior National Park Service</b></p> <p align="center"><b>Congaree NP</b></p>	<p><b>Study#:</b> CONG-00082  <b>Permit#:</b> CONG-2008-SCI-0025  <b>Start Date:</b> Jan 01, 2009  <b>Expiration Date:</b> Dec 31, 2009  <b>Coop Agreement#:</b> n/a  <b>Optional Park Code:</b> n/a</p>
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<p><b>Name of principal investigator:</b></p> <p><b>Name:</b> Michael Montebello <b>Phone:</b> 803-898-4228 <b>Email:</b> montebmj@dhec.sc.gov</p>
<p><b>Name of institution represented:</b></p> <p>South Carolina Department of Health and Environmental Control</p>
<p><b>Co-Investigators:</b></p> <p><b>Name:</b> David Chestnut <b>Phone:</b> 803-898-4066 <b>Email:</b> Chestnde@dhec.sc.gov</p>
<p><b>Project title:</b></p> <p>An analysis of the concentration of Fecal Coliform, Enterococci and Escherichia coli (E. coli) in Cedar Creek and Microbial Source Tracking in Congaree National Park (CNP).</p>
<p><b>Purpose of study:</b></p> <p>This study will attempt to quantify and compare Fecal Coliform, Enterococci and Escherichia coli (E. coli) in Cedar Creek within Congaree National Park (CNP) to assess the bacteriological concentrations for these indicator bacteria. Multiple Tube Fermentation (MTF) tests will be used including Enterolert<sup>®</sup> for Enterococci and ColilertA<sup>®</sup> for Escherichia coli. In addition, samples at various locations within CNP will be analyzed for DNA markers or other Source Tracking Methods to attempt to identify the source of the bacteriological material. Approximately 116 samples for Fecal Coliform, Enterococci and E. coli will be collected from January 1, 2009 through December 31, 2009. This information will also be compared with bacteriological data collected by SCDHEC from other locations throughout the State of South Carolina to form an analysis of the bacteriological indicators and for a preliminary assessment of bacteriological sources within CNP.</p>
<p><b>Subject/Discipline:</b></p> <p>Water Quality</p>
<p><b>Locations authorized:</b></p> <p>This project would serve to focus on Cedar Creek within Congaree National Park.</p> <p>Three locations along Cedar Creek that include the two existing canoe access points (identified as Bannister Bridge and South Cedar Creek canoe access on NPS maps) along with an additional sample location in the vicinity of Sims Trail, at Bridge B will be used:</p> <p>Bannister Bridge-Canoe Access  UTM: 05129303744217 LAT/LONG: 33.838126 -80.860255</p> <p>Cedar Creek- Bridge Bridge Weston Lake Loop Trail  UTM: 05159673741750 LAT/LONG: 33.815836 -80.827470</p> <p>Cedar Creek Canoe Access - From South Cedar Creek Road  UTM: 05195753742057 LAT/LONG: 33.818544 -80.788478</p>

**Transportation method to research site(s):**

The use of mechanized equipment for sampling is required; the SCDHEC collection staff will need to drive along Simâ s Trail to the footbridge for collection of samples on Cedar Creek at Bridge B. This limited access is needed in order to allow the samples to be collected and returned to the SCDHEC lab within the required holding time.

**Collection of the following specimens or materials, quantities, and any limitations on collecting:**

Water samples are authorized to be collected from Cedar Creek locations in quantities sufficient for analysis (approximately 500 ml)

Samples are authorized to be collected following the monthly and weekly sampling schedule outlined in the project proposal and submitted in conjunction with the research application (Application ID: 43652).

Collection of animal feces required for bacteria source tracking analysis is also authorized with issuance of this permit, following proper collection protocols and safety measures.

**Name of repository for specimens or sample materials if applicable:**

Repository type: Will be destroyed through analysis or discarded after analysis

Objects collected:

Water samples collected for Fecal coliform, Enterolertâ ¢ for Enterococci and ColilertÂ® for Escherichia coli would be 500 ml total and would be taken using presterilized glass bottles.

Collection of animal feces (e.g. feral hog, deer, bird) may be required for the Source Tracking analysis. No injury or impact to the animal population is expected.

**Specific conditions or restrictions (also see attached conditions):**

Please see the attached park specific research conditions.

The investigator must notify the Resource Management staff prior to all field activities. This notification may consist of a telephone call or email at least one day in advance of scheduled field activities. This notification is required to ensure the safety of the researcher, and to promote cooperation between the researcher and Natural Resource Management staff.

An electronic copy of all scientific data, including a species list and publications resulting from collecting through the issuance of this permit will be provided to park staff.

The investigator will work with Research and Education staff at Congaree National Park to participate in various outreach activities and/or develop outreach materials related to this permitted research.

Recommended by park staff(name and title):

Theresa Thom - Ecologist

Reviewed by Collections Manager:

Yes \_\_\_\_\_ No ☒

Approved by park official:

Bill Hulslander

Date Approved:

12/31/08

Title:

Integrated Resource Program Manager

I Agree To All Conditions And Restrictions Of this Permit As Specified

(Not valid unless signed and dated by the principal investigator)

Michael Marshall

(Principal investigator's signature)

12-3-08

(Date)

**THIS PERMIT AND ATTACHED CONDITIONS AND RESTRICTIONS MUST BE CARRIED AT ALL TIMES  
WHILE CONDUCTING RESEARCH ACTIVITIES IN THE DESIGNATED PARK(S)**



## **GENERAL CONDITIONS** **For** **SCIENTIFIC RESEARCH AND COLLECTING PERMIT**

**United States Department of the Interior**  
**National Park Service**

1. **Authority** - The permittee is granted privileges covered under this permit subject to the supervision of the superintendent or a designee, and shall comply with all applicable laws and regulations of the National Park System area and other federal and state laws. A National Park Service (NPS) representative may accompany the permittee in the field to ensure compliance with regulations.
2. **Responsibility** - The permittee is responsible for ensuring that all persons working on the project adhere to permit conditions and applicable NPS regulations.
3. **False information** - The permittee is prohibited from giving false information that is used to issue this permit. To do so will be considered a breach of conditions and be grounds for revocation of this permit and other applicable penalties.
4. **Assignment** - This permit may not be transferred or assigned. Additional investigators and field assistants are to be coordinated by the person(s) named in the permit and should carry a copy of the permit while they are working in the park. The principal investigator shall notify the park's Research and Collecting Permit Office when there are desired changes in the approved study protocols or methods, changes in the affiliation or status of the principal investigator, or modification of the name of any project member.
5. **Revocation** - This permit may be terminated for breach of any condition. The permittee may consult with the appropriate NPS Regional Science Advisor to clarify issues resulting in a revoked permit and the potential for reinstatement by the park superintendent or a designee.
6. **Collection of specimens (including materials)** - No specimens (including materials) may be collected unless authorized on the Scientific Research and Collecting permit.

The general conditions for specimen collections are:

- Collection of archeological materials without a valid Federal Archeology Permit is prohibited.
- Collection of federally listed threatened or endangered species without a valid U.S. Fish and Wildlife Service endangered species permit is prohibited.
- Collection methods shall not attract undue attention or cause unapproved damage, depletion, or disturbance to the environment and other park resources, such as historic sites.
- New specimens must be reported to the NPS annually or more frequently if required by the park issuing the permit. Minimum information for annual reporting includes specimen classification, number of specimens collected, location collected, specimen status (e.g., herbarium sheet, preserved in alcohol/formalin, tanned and mounted, dried and boxed, etc.), and current location.

- Collected specimens that are not consumed in analysis or discarded after scientific analysis remain federal property. The NPS reserves the right to designate the repositories of all specimens removed from the park and to approve or restrict reassignment of specimens from one repository to another. Because specimens are Federal property, they shall not be destroyed or discarded without prior NPS authorization.
- Each specimen (or groups of specimens labeled as a group) that is retained permanently must bear NPS labels and must be accessioned and cataloged in the NPS National Catalog. Unless exempted by additional park-specific stipulations, the permittee will complete the labels and catalog records and will provide accession information. It is the permittee's responsibility to contact the park for cataloging instructions and specimen labels as well as instructions on repository designation for the specimens.
- Collected specimens may be used for scientific or educational purposes only, and shall be dedicated to public benefit and be accessible to the public in accordance with NPS policies and procedures.
- Any specimens collected under this permit, any components of any specimens (including but not limited to natural organisms, enzymes or other bioactive molecules, genetic materials, or seeds), and research results derived from collected specimens are to be used for scientific or educational purposes only, and may not be used for commercial or other revenue-generating purposes unless the permittee has entered into a Cooperative Research And Development Agreement (CRADA) or other approved benefit-sharing agreement with the NPS. The sale of collected research specimens or other unauthorized transfers to third parties is prohibited. Furthermore, if the permittee sells or otherwise transfers collected specimens, any components thereof, or any products or research results developed from such specimens or their components without a CRADA or other approved benefit-sharing agreement with NPS, permittee will pay the NPS a royalty rate of twenty percent (20%) of gross revenue from such sales or other revenues. In addition to such royalty, the NPS may seek other damages to which the NPS may be entitled including but not limited to injunctive relief against the permittee.

7. **Reports** - The permittee is required to submit an Investigator's Annual Report and copies of final reports, publications, and other materials resulting from the study. Instructions for how and when to submit an annual report will be provided by NPS staff. Park research coordinators will analyze study proposals to determine whether copies of field notes, databases, maps, photos, and/or other materials may also be requested. The permittee is responsible for the content of reports and data provided to the National Park Service.

8. **Confidentiality** - The permittee agrees to keep the specific location of sensitive park resources confidential. Sensitive resources include threatened species, endangered species, and rare species, archeological sites, caves, fossil sites, minerals, commercially valuable resources, and sacred ceremonial sites.

9. **Methods of travel** - Travel within the park is restricted to only those methods that are available to the general public unless otherwise specified in additional stipulations associated with this permit.

10. **Other permits** - The permittee must obtain all other required permit(s) to conduct the specified project.

11. **Insurance** - If liability insurance is required by the NPS for this project, then documentation must be provided that it has been obtained and is current in all respects before this permit is considered valid.

12. **Mechanized equipment** - No use of mechanized equipment in designated, proposed, or potential wilderness areas is allowed unless authorized by the superintendent or a designee in additional specific conditions associated with this permit.

13. **NPS participation** - The permittee should not anticipate assistance from the NPS unless specific arrangements are made and documented in either an additional stipulation attached to this permit or in other separate written agreements.

14. **Permanent markers and field equipment** - The permittee is required to remove all markers or equipment from the field after the completion of the study or prior to the expiration date of this permit. The superintendent or a designee may modify this requirement through additional park specific conditions that may be attached to this permit. Additional conditions regarding the positioning and identification of markers and field equipment may be issued by staff at individual parks.

15. **Access to park and restricted areas** - Approval for any activity is contingent on the park being open and staffed for required operations. No entry into restricted areas is allowed unless authorized in additional park specific stipulations attached to this permit.

16. **Notification** - The permittee is required to contact the park's Research and Collecting Permit Office (or other offices if indicated in the stipulations associated with this permit) prior to initiating any fieldwork authorized by this permit. Ideally this contact should occur at least one week prior to the initial visit to the park.

17. **Expiration date** - Permits expire on the date listed. Nothing in this permit shall be construed as granting any exclusive research privileges or automatic right to continue, extend, or renew this or any other line of research under new permit(s).

18. **Other stipulations** - This permit includes by reference all stipulations listed in the application materials or in additional attachments to this permit provided by the superintendent or a designee. Breach of any of the terms of this permit will be grounds for revocation of this permit and denial of future permits.







# Park Specific Conditions Scientific Research and Collecting Permit



## Congaree National Park

The following "**Park Specific Conditions**" and procedures are mandatory and must be adhered to by all permit recipients, in addition to the "**General Conditions**" outlined by the National Park Service and "**Project Specific Conditions**" if applicable. Any questions pertaining to the permitting process may be directed to the Resource Management Staff.

### Communication/Notification

The principal investigator is responsible for meeting with park staff for a brief orientation meeting to discuss project logistics prior to initiating any work under this permit. Further briefings should be scheduled to update the park on progress and to address any problems. Frequent communication between the park and the project participants throughout all phases of the research is encouraged.

At least one day prior to commencement of sampling, please notify the park research coordinator (803-695-0214) or resource management staff (803-776-4396) of estimated time of arrival and actual sampling date(s).

### Protected Information

NPS must not release to anyone outside the federal government any information protected by the resource confidentiality laws – 16 U.S.C. § 5937 (National Parks Omnibus Management Act); 16 U.S.C. § 470w-3 (National Historic Preservation Act) 16 U.S.C. § 4304 (Federal Cave Resources Protection Act) and 16 U.S.C. § 470hh (Archaeological Resources Protection Act) – unless the information meets the specific criteria for release that are listed in the applicable resource confidentiality law. Generally these criteria require finding that the release of information will not result in harm, theft, or destruction of the resource. The only exception is if the Director of the National Park Service or the Director's designee determines that the release of the protected information: 1) would further the purposes of the unit of the national park system in which the resource is located; 2) would not create an unreasonable risk of harm, theft, or destruction of the resource; and 3) would be consistent with other applicable laws protecting the resource.

If the proposed research may produce sensitive and protected information that must not be disclosed publicly in any format, the researcher must comply with the following:

- 1) Congaree National Park "Project Specific Conditions"
- 2) Sign a National Park Service Confidentiality Agreement
- 3) Agree to work with NPS to prevent the release of protected information

**Protected information** means information that is protected by the four resource confidentiality laws applicable to NPS (see above), and identifies the specific location and/or nature of a sensitive national park system resource or object. **Specific location** means a descriptive, graphical, or electronic portrayal of a place in such detail that knowledge of the area would allow a person to find it. **Nature of a national park system resource or object** means physical

features, behaviors, locational relationships, and process relationships that characterize a resource or object. **Sensitive resource or object** means species listed as threatened or endangered, rare species and species of special concern, or any resource identified by Congaree National Park as having significant importance.

### **Site Marking and Delineation**

Congaree National Park is a federally designated wilderness area. The use of plastic flagging or permanent field markers is not allowed. Projects that require temporary or long-term field markers will require specific approval. Any field markers approved will be discreet so as to not detract from the wilderness experience. If permission is granted for flagging tape, only biodegradable tape may be used. All markers (including flagging) must be removed promptly upon completion of field work.

### **Reporting and Outreach**

Annual reports are required through the NPS Research Permit and Reporting System available via the website <http://science.nature.nps.gov/research>. Permittees will provide, within agreed-upon time frames; copies of appropriate field notes, cataloging and other data, associated metadata, progress reports, interim and final reports, photographs, and publications derived from the permitted activities.

Outreach is an important component of research activities at Congaree National Park. At a minimum, a research summary and poster with photos explaining research activities to a general audience will be required of all permitted research projects conducted within the park. If appropriate, researchers will also be asked to participate in at least one educational outreach activity presenting research findings and information to park visitors.

### **Specimen Collection**

Natural resource collections include non-living and living specimens. All specimens or materials collected will become part of the National Park Service collection. Collections will be housed at Congaree National Park or with a non-NPS institution provided the institution meets criteria as set forth by the NPS archives directives. These requirements are available via the website <http://www.nps.gov/policy/mp/chapter4.htm#Collecting> under section 4.2 "Studies and Collections." Guidance for collecting and managing specimens and associated field records can be found in the Code of Federal Regulations (36 CFR 2. 5) and NPS guidance documents, including the museum handbook. Non- living specimens and their associated field records are managed as museum collections. Living collections will be managed in accordance with the provisions of a park's management plan, the Animal Welfare Act, and other appropriate requirements. Field data, objects, specimens, and features obtained for preservation during inventory, monitoring, research, and study projects, together with associated records and reports, will be managed over the long term within the museum collection. Specimens that are not authorized for consumptive analysis will be labeled and cataloged into an appropriate cataloging system in accordance with applicable regulations (36 CFR 2. 5).

Collected specimens that are not consumed in analysis will remain federal property. The NPS reserves the right to designate the repositories of all specimens removed from the park and to

approve or restrict reassignment of specimens from one repository to another. Specimens shall not be destroyed or discarded without prior NPS authorization.

Each specimen (or groups of specimens labeled as a group) that is retained permanently must bear NPS labels and must be accessioned and cataloged in the National NPS Catalog. Unless exempted by additional park-specific stipulations, the permittee will complete the labels and catalog records and will provide accession information. It is the permittee's responsibility to contact the park for cataloging instructions and specimen labels as well as instructions on repository designation for the specimens.

### **Additional Resources**

Congaree National Park hosts the Old-Growth Bottomland Forest Research and Education Center; dedicated to understanding the systems and functions of floodplain environments and monitoring environmental change. The Research and Education Center includes indoor and outdoor classrooms, a natural history research collection, laboratory space, administrative offices, and living quarters for visiting scientists. Bunk space for up to twelve people, a kitchen, living room, restrooms, workshop/computer lab, and storage facilities help to accommodate research activities on-going at the park. Overnight guests have been accommodated for a single night and for several months at a time, depending on the nature of their research. Other field equipment is available for researchers' use, including GPS units, field radios, measuring equipment, collecting nets and foul weather gear. For further information regarding the Old-Growth Bottomland Forest Research and Education Center, please contact the Research Coordinator at (803)695-0214 or the Park Superintendent at (803)776-4396.

